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| TRANSMITTAL FORM (to be used for all correspondence after initial filing) | Application Number | 10/805,099 | |
| | Filing Date | March 19, 2004 | |
| | First Named Inventor | Chunhui Xu, et al. | |
| | Art Unit | 1632 | |
| | Examiner Name | Thaian N. Ton | |
| Total Number of Pages in This Submission | 9 | Attorney Docket Number | 099/004P |

| ENCLOSURES (Check all that apply) | | |
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| | <input type="checkbox"/> Landscape Table on CD | |
| <input type="checkbox"/> Certified Copy of Priority Document(s) | Remarks Form PTO-1449 (6 pages) with copies of 32 references | |
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| SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT | | | |
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| Firm Name | Geron Corporation | | |
| Signature | <i>Bart W. Wise</i> | | |
| Printed name | Bart W. Wise | | |
| Date | January 13, 2006 | Reg. No. | 49,029 |

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This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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Karen Zielen
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the application of: Chunhui Xu *et al.*

Serial No.: 10/805,099

Filing Date: March 19, 2004

Attorney Docket: 099/004

For: PROCESS FOR MAKING TRANSPLANTABLE
CARDIOMYOCYTES FROM HUMAN
EMBRYONIC STEM CELLS

Art Unit: 1632

Examiner: TBD

INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. §1.97

Commissioner for Patents
Arlington, VA 22313-1450

Dear Sir:

The information listed in the accompanying Form PTO-1449 and provided herewith may be material to examination of this application and is submitted in compliance with the duty of disclosure under 37 CFR § 1.56. The Examiner is requested to make this information of record in the application.

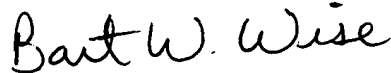
PATENT
Serial No. 10/805,099
Docket: 099/004
Information Disclosure Statement

Serial No. 10/193,884, to which this application claims priority under 35 U.S.C. §120. This is in compliance with the provisions of 37 C.F.R. §1.98(d).

This Information Disclosure Statement is not to be construed as a representation that a full search for relevant information has been made, that all relevant information has been found, or that the information provided with this Statement is considered to be material to patentability of the claimed invention as defined under 37 CFR § 1.56(b).

It is believed that no fee is required for submission of this Statement, which is filed before the first Office Action on the merits of the application. Nevertheless, should a fee be required for consideration of this Statement and the listed information, the Assistant Commissioner is authorized to charge such fee to Deposit Account No. 07-1139, referencing the attorney Docket Number indicated above.

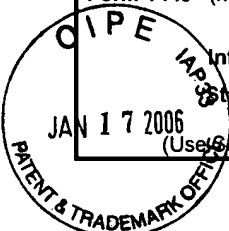
Respectfully submitted,



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DATE: January 13, 2006

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|  | Form 1449 (modified) 37 C.F.R. §1.97 Information Disclosure Statement By Applicant (Use Several Sheets if Necessary) | Docket: 099/004P Title: Process for Making Transplantable Cardiomyocytes from Human Embryonic Stem Cells Inventors: Chunhui Xu, et al. Filing Date: March 19, 2004 | U.S.S.N. 10/805,099 Group: 1632 |
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U.S. Patent Documents

| Examiner Initial | Ref. | Patent No. | Filing Date | Publication Date | Class/ Subclass | Inventors | Title |
|------------------|------|----------------|-------------|------------------|-----------------|-------------------|--|
| | A | 5,733,727 | Jun 7/95 | Mar 31/98 | 435/6 | Field | Myocardial grafts and cellular compositions |
| | B | 5,843,780 | Jan 18/96 | Dec 1/98 | 435/363 | Thomson | Primate embryonic stem cells |
| | C | 5,928,943 | Nov 21/95 | Jul 27/99 | 435/363 | Franz, et al. | Embryonal cardiac muscle cells, their preparation and their use |
| | D | 6,015,671 | Nov 21/97 | Jan 18/00 | 435/6 | Field | Myocardial grafts and cellular compositions |
| | E | 6,099,832 | Jun 19/98 | Aug 8/00 | 424/93.21 | Mickle, et al. | Transplants for myocardial scars |
| | F | 6,110,459 | May 28/97 | Aug 29/00 | 424/93.21 | Mickle, et al. | Transplants for syocardial scars and methods and cellular preparations |
| | G | 6,245,566 | Mar 31/98 | Jun 12/01 | 435/384 | Gearhart, et al. | Human embryonic germ cell Line and methods of use |
| | H | 6,261,836 | May 9/97 | Jul 17/01 | 435/325 | Cech, et al. | Telomerase |
| | I | 6,387,369 | Jul 14/98 | May 14/02 | 424/93.7 | Pittenger, et al. | Cardiac muscle regeneration using mesenchymal stem cells |
| | J | 6,399,300 | Nov 16/99 | Jun 4/02 | 435/6 | Field | Myocardial grafts and cellular compositions useful for same |
| | K | 6,534,052 | Sep 05/00 | Mar 18/03 | 424/93.2 | Xiao, et al. | Cardiac function comprising implantation of embryonic stem cell in which differntiation has been initiated |
| | L | US 20050037489 | Jan 20/04 | Feb 17/05 | 435/366 | Gepstein, et al. | Methods of inducing differentiation of stem cells |
| | M | US20050227353 | Jan. 14/04 | Oct 13/05 | 435/366 | Mummery | Methods of Inducing differntiation of stem cells |

Foreign Patent or Published Foreign Patent Application

| Examiner Initial | Ref. | Document No. | Publication Date | Jurisdiction | Title | Translation |
|------------------|------|--------------|------------------|--------------|--|-------------|
| | N | AU 729377 | Feb 1/01 | Australia | Methods and materials for the growth of primate-derived primordial stem cells in feeder-free culture | N/A |
| | P | WO 92/13066 | Aug 6/92 | PCT | Mammalian cardiac myocyte cell line | N/A |
| | Q | WO 95/14079 | May 26/95 | PCT | Myocardial grafts and cellular compositions useful for same | N/A |
| | R | WO 99/49015 | Sep 30/99 | PCT | Cardiac-derived stem cells | N/A |
| | S | WO 00/06701 | Feb 10/00 | PCT | Improvement of cardiac function by mesenchymal stem cell transplantation | N/A |
| | T | WO 00/70021 | Nov 23/00 | PCT | Differentiated human embryoid cells and a method for producing them | N/A |

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| Examiner Initial | Ref. | Document No. | Publication Date | Jurisdiction | Title | Translation |
|------------------|------|--------------|------------------|--------------|--|-------------|
| | U | WO 00/78119 | Dec 28/00 | PCT | Cardiomyocytes with enhanced proliferative potential, and methods for preparing and using same | N/A |
| | V | WO 01/22978 | Apr 5/01 | PCT | Autologous marrow stem cell (MSC) transplantation for myocardial regeneration | N/A |
| | W | WO 01/51616 | Jul 19/01 | PCT | Techniques for growth and differentiation of human pluripotent stem cells | N/A |
| | X | WO 01/53465 | Jul 26/01 | PCT | Human embryoid body-derived cells | N/A |
| | Y | WO 01/68814 | Sep 20/01 | PCT | Multipotent cell and cardiomyocyte cell populations, and routes to and uses of same | N/A |
| | Z | WO 02/09650 | Feb 7/02 | PCT | Methods and compositions for the repair and/or regeneration of damaged myocardium | N/A |
| | AA | WO 02/13760 | Feb 21/02 | PCT | Methods and compositions for the repair and/or regeneration of damaged myocardium | N/A |
| | AB | WO 02/19893 | Mar 14/02 | PCT | Method for the improvement of cardiac function in a living subject after myocardial infarction via intramyocardial implantation of mammalian embryonic stem cells | N/A |
| | AC | WO 02/30206 | Apr 18/02 | PCT | Genetically altered mammalian embryonic stem cells, their living progeny, and their therapeutic application for improving cardiac function after myocardial infarction | N/A |
| | AD | WO 03/006950 | Jan 23/03 | PCT | Cells of the cardiomyocyte lineage produced from human pluripotent stem cells | N/A |
| | AE | WO 04/081205 | Sep 23 2004 | PCT | Differentiation of human embryonic stem cells to cardiomyocytes | N/A |

Other Documents

| Examiner Initial | Ref. | Author, Title, Source, Date |
|------------------|------|---|
| | AF | Alsan et al., Regulation of avian cardiogenesis by Fgf8 signaling, Development, 129:1935 (2002) |
| | AG | Andree et al., BMP-2 induces expression of cardiac lineage markers and interferes with somite formation in chicken embryos, Mech. of Deve., 70:119 (1998) |
| | AH | Antin et al., Regulation of avian precardiac mesoderm development by insulin and insulin-like growth factors, J. Cell. Physiol. 168:42 (1996) |
| | AI | Arai et al., Murine cardiac progenitor cells require visceral embryonic endoderm and primitive streak for terminal differentiation, Dev. Dynamics 210:344 (1997) |
| | AJ | Barron et al., Requirement for BMP and FGF signaling during cardiogenic induction in non-precrdiac mesoderm is specific, transient, and cooperative, Dev. Dynamics 218:383 (2000) |
| | AK | Bauwens et al., Development of perfusion fed bioreactor for embryonic stem cell-derived cardiomyocyte generation: oxygen-mediated enhancement of cardiomyocyte output, biotechnology and bioengineering 90 (4):452 (2005) |
| | AL | Behfar et al., Stem cell differentiation requires a paracrine pathway in the heart, FASEB J, 16:1558 (2002) |
| | AM | Claycomb et al., HL-1 cells: A cardiac muscle cell line that contracts and retains phenotypic characteristics of the adult cardiomyocyte, Proc. Natl. Acad. Sci. USA 95:2979 (1998) |

| Examiner | Date Considered |
|----------|-----------------|
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Other Documents

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|------------------|------|---|
| | AN | Dang et al. Controlled, scalable embryonic stem cell differentiation culture, Stem Cells, 22:275 (2004) |
| | AO | Doevendans et al., Differentiation of cardiomyocytes in floating embryoid bodies is comparable to fetal cardiomyocytes, J. Mol. Cell Cardiol, 32:839 (2000) |
| | AP | Dubus et al., Contractile protein gene expression in serum-free cultured adult rat cardiac myocytes, Pflugers Arch, 423:455 (1993) |
| | AQ | Fukuda, Development of regenerative cardiomyocytes from mesenchymal stem cells for cardiovascular tissue engineering, Artificial Organs 25:187 (2001) |
| | AR | Gepstein, Derivation and Potential Applications of Human Embryonic Stem Cells, Circulation Research, 91 (10):866 (2002) |
| | AS | Grepin et al., Enhanced cardiogenesis in embryonic stem cells overexpressing the GATA-4 transcription factor, Development 124:2387 (1997) |
| | AT | Gryshenko et al., Outwards currents in embryonic stem cell-derived cardiomyocytes, Pflugers Arch. 439:798 (2000) |
| | AU | Heng et al., Strategies for directing the differentiation of stem cells into the cardiomyogenic lineage in vitro, Cardiovascular Research, 62:34 (2004) |
| | AV | Itskovitz-Eldor et al., Differentiation of Human Embryonic Stem Cells into Embryoid Bodies Comprising the Three Embryonic Germ Layers, Mol. Med. 6:88 (2000) |
| | AW | Johansson et al., Evidence for involvement of activin A and bone morphogenetic protein 4 in mammalian mesoderm and hematopoietic development, Molecular and Cellular Biology, 15(1):141 (1995) |
| | AX | Kawai et al., Efficient cardiomyogenic differentiation of embryonic stem cell by fibroblast growth factor 2 and bone morphogenetic protein 2, Circ J 68:691 (2004) |
| | AY | Kehat et al., Electromechanical integration of cardiomyocytes derived from human embryonic stem cells, Nature Biotechnology, 22(10):1282 (2004) |
| | AZ | Kehat et al., Abstract, Human embryonic stem cells can differentiate into cardiocytes with structural and functional properties of cardiomyocytes, J. Clin. Invest., 108:407 (2001) |
| | BA | Kehat et al., Long term high-resolution, Electrophysiological assessment of human embryonic stem cell derived cardiomyocytes: A novel in vitro model for the human heart, Circulation, 102(18 Suppl.II):II-4 (2000) |
| | BB | Kessler et al., Myoblast cell grafting into heart muscle: Cellular biology and potential applications, Annu. Rev. Physiol. 61:219 (1999) |
| | BC | Klug et al. Genetically selected cardiomyocytes from differentiating embryonic stem cells form stable intracardiac grafts, J. Clin. Invest. 98:216 (1996) |
| | BD | Koide et al., Atrial natriuretic peptide accelerates proliferation of chick embryonic cardiomyocytes in vitro, Differentiation 61:1 (1996) |
| | BE | Kolosov et al., Functional characteristics of ES cell-derived cardiac precursor cells identified by tissue-specific expression of the green fluorescent protein, J. Cell Biol. 143:2045 (1998) |
| | BF | Ladd et al., Regulation of avian cardiac myogenesis by activin/TGFB and bone morphogenetic proteins, Dev. Biology 204:407 (1998) |
| | BG | Lev et al., Differentiation pathways in human embryonic stem cell-derived cardiomyocytes, Ann. N.Y. Acad. Sci. 1047:50 (2005) |
| | BH | Liechty et al., Human mesenchymal stem cells engraft and demonstrate site-specific differentiation after in utero transplantation in sheep, Nature Med. 6:1282 (2000) |
| | BI | Li et al., Isolation of cardiomyocytes from human myocardium for primary cell culturing, J. Tiss. Cult. Meth. 15:147 (1993) |

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|--|---|

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|------------------|------|--|
| | BJ | Lough et al., Combined BMP-2 and FGF-4, but neither factor alone, induces cardiogenesis in non-precordial embryonic mesoderm, Dev. Biology 178:198 (1996) |
| | BK | Makino et al., Cardiomyocytes can be generated from marrow stromal cells in vitro, J. Clin. Invest. 103:697 (1999) |
| | BL | Maltsev et al., Embryonic stem cells differentiate in vitro into cardiomyocytes representing sinusnodal, atrial and ventricular cell types, Mechanisms Dev. 44:41 (1993) |
| | BM | Matsushita et al., Formation of cell junctions between grafted and host cardiomyocytes at the border zone of rat myocardial infarction, Circulation 100[suppl. II]: II-262 (1999) |
| | BN | Marvin et al., Inhibition of Wnt activity induces heart formation from posterior mesoderm, Genes Dev. 15:316 (2001) |
| | BO | McBurney et al., Control of muscle and neuronal differentiation in a cultured embryonal carcinoma cell line, Nature 299:165 (1982) |
| | BP | McDowell et al., Activin as a morphogen in Xenopus mesoderm induction, Seminars in Cell & Development Biology, 10:311 (1999) |
| | BQ | Menard et al., Transplantation of cardiac-committed mouse embryonic stem cells to infarcted sheep myocardium: preclinical study, Lancet 366:1005 (2005) |
| | BR | Messina et al., Isolation and expansion of adult cardiac stem cells from human and murine heart, 95:911 (2004) |
| | BS | Min et al., Transplantation of embryonic stem cells improves cardiac function in postinfarcted rats, J. Appl. Physiol. 92:288 (2002) |
| | BT | Monzen et al., Bone morphogenetic proteins induce cardiomyocyte differentiation through the mitogen-activated protein kinase kinase kinase kinase TAK1 and cardiac transcription factors CsxNkx-2.5 and GATA-4, Mol. Cell Biol. 19:7096 (1999) |
| | BU | Muller et al., Selection of ventricular-like cardiomyocytes from ES cells in vitro, FASEB J. 14:2540 (2000) |
| | BV | Mummery et al., Cardiomyocyte differentiation of mouse and human embryonic stem cells, J Anat., 200 (Pt 3):233 |
| | BW | Mummery et al., Differentiation of human embryonic stem cells to cardiomyocytes: Role of coculture with visceral endoderm-like cells, Circulation, 107:2733 (2003) |
| | BX | Muslin et al., Wnt-defined growth factors promote cardiac development in axoloti mesodermal explants, Development 112:1095 (1991) |
| | BY | Narita et al., Cardiomyocyte differentiation by GATA-4-deficient embryonic stem cells, Development 124:3755 (1997) |
| | BZ | Olson et al., Molecular pathways controlling heart development, Science 272:671 (1996) |
| | CA | Odorico et al., Multilineage differentiation from human embryonic stem cell lines, Stem Cells, 19:193 (2001) |
| | CB | Oh et al. Cardiac progenitor cells from adult myocardium: Homing, differentiation, and fusion after infarction, PNAS 100(21): 12313 (2003) |
| | CO | O'Shea, Embryonic Stem cell models of development, Anatomical Record, 257 (1):32 (1999) |
| | CC | Qin et al., Gene transfer of transforming growth factor-B1 prolongs murine cardiac allograft survival by inhibiting cell-mediated immunity, Human Gene Therapy 7:1981 (1996) |
| | CD | Reubinoff et al., Embryonic stem cell line from human blastocysts: somatic differentiation in vitro, Nature Biotech. 18:399 (2000) |
| | CE | Satin et al., Mechanism of spontaneous excitability in human embryonic stem cell derived cardiomyocytes, J Physiol 559(2):479 (2004) |

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| | CF | Scalia et al., Regulation of the Akt/Glycogen synthase kinase-3 axis by insulin-like growth factor-II via activation of the human insulin receptor isoform-A, J. Cell. Biochem. 82:610 (2001) |
| | CG | Schlange et al., BMP2 is required for early heart development during a distinct time period, Mechanisms of Development, 91:259 (2000) |
| | CH | Schneider et al., Wnt antagonism initiates cardiogenesis in <i>Xenopus laevis</i> , Genes Dev. 15:304 (2001) |
| | CI | Schuldiner et al., Effects of eight growth factors on the differentiation of cells derived from human embryonic stem cells, PNAS 97:11307 (2000) |
| | CL | Schultheiss et al., Induction of avian cardiac myogenesis by anterior endoderm, Development 121:4203 (1995) |
| | CJ | Schultheiss et al., A role for bone morphogenetic proteins in the induction of cardiac myogenesis, Genes & Dev. 11:451 (1997) |
| | CK | Shamblott et al., Derivation of pluripotent stem cells from cultured human primordial germ cells, Proc. Natl. Acad. Sci. USA 95:13726 (1998) |
| | CM | Shi et al., BMP signaling is required for heart formation in vertebrates, Dev. Biol. 224:226 (2000) |
| | CN | Skerjane, et al., Myocyte enhancer factor 2C and Nkx2-5 up-regulate each other's expression and initiate cardiomyogenesis in P19 cells, J. Biol. Chem. 273:34904 (1998) |
| | CP | Sugi et al., Activin-A and FGF-2 mimic the inductive effects of anterior endoderm on terminal cardiac myogenesis in vitro, Dev. Biology 168:567 (1995) |
| | CQ | Symes et al., Morphological differences in <i>Xenopus</i> embryonic mesodermal cells are specified as and early response to distinct threshold concentrations of activin, Development 120:2339 (1994) |
| | CR | Thomson et al., Embryonic stem cell lines derived from human blastocysts, Science 282:1145 (1998) |
| | CS | Velez et al., Modulation of contractile protein troponin-T in chick myocardial cells by basic fibroblast growth factor and platelet-derived growth factor during development, J. Cardiovascular Pharmacology 24:906 (1994) |
| | CT | Volz et al., Longevity of adult ventricular rat heart muscle cells in serum-free primary culture, J. Mol. Cell Cardiol. 23:161 (1991) |
| | CU | Walters et al., Bone morphogenetic protein function is required for terminal differentiation of the heart but not for early expression of cardiac marker genes, Mechanisms of Development, 100:263 (2001) |
| | CV | Wobus et al., In vitro cellular models for cardiac development and pharmacotoxicology, Toxic. in Vitro 9:477 (1995) |
| | CW | Wobus et al., Development of cardiomyocytes expressing cardiac-specific genes, action potentials, and ionic channels during embryonic stem cell-derived cardiogenesis, Ann. N.Y. Acad. Sci. 752:460 (1995) |
| | CX | Wobus et al., Retinoic acid accelerates embryonic stem cell-derived cardiac differentiation and enhances development of ventricular cardiomyocytes, J. Mol. Cell Cardiol. 29:1525 (1997) |
| | CY | Xu et al., Feeder-free growth of undifferentiated human embryonic stem cells, 19 (10): 971 (2001) |
| | CZ | Xu et al., Characterization and enrichment of cardiomyocytes derived from human embryonic stem cells, Circulation Research, 91 (6): 501 (2002) |
| | DA | Xu et al., Specific arrest of cardiogenesis in cultured embryonic stem cells lacking Cripto-1, Dev Biol. 196:237 (1998) |
| | DB | Yatskievych et al., Induction of cardiac myogenesis in avian pregastrula epiblast: the role of the hypoblast and activin, Development, 124:2561 (1997) |
| | DC | Zandstra et al., Scalable production of embryonic stem cell-derived cardiomyocytes, Tissue Engineering, 9(4):767 (2003) |

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|------------------|------|--|
| | DD | Zhu et al., Evidence that fibroblast growth factors 1 and 4 participate in regulation of cardiogenesis, Dev. Dynamics 207:429 (1996) |
| | DE | Zingg et al., Genetic and epigenetic aspects of DNA methylation on genome expression, evolution, mutation and carcinogenesis, Carcinogenesis 18:869 (1997) |

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|----------|-----------------|
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